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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,229	02/27/2002	Joerg Wurft	2020318	7795

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EXAMINER	
BELLINGER, JASON R	
ART UNIT	**PAPER NUMBER**
3617	

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/086,229	WURFT, JOERG	
	Examiner	Art Unit	
	Jason R. Bellinger	3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 6-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 6-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 April 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Withdrawal of Finality

1. The finality of the rejection of the last Office action is withdrawn for the reasons set forth in paragraph 2 below. The After-Final amendment filed 25 April 2005 has been entered.

Allowable Subject Matter

2. The indicated allowability of claims 1-2 and 6-11 is withdrawn in view of further consideration of the previously cited reference(s) to English, Maiworm et al, and Hummel et al. Rejections based on the newly cited reference(s) follow.

Drawings

3. The drawings were received on 25 April 2005. These drawings are approved.

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the spacing liners having radially extending flanges that are received against annular outer shoulders, as set forth in claim 11, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim is indefinite due to the fact that it is unclear what element of the invention has "annular shoulders" a set forth in line 13 of the claim. Reliance upon a reference character is not sufficient to clearly describe the invention. Furthermore, the drawings clearly show that the radially extending flanges of the spacing liners engage (or are received against) annular shoulders of the attachment bores of the wheel, and not bores of the spacing disk.

Furthermore, claim 11 is indefinite due to the fact that it is unclear what is actually being claimed in the last 3 lines of the claim. It is unclear how the annular shoulder is located in a face of the spacer unit that is positioned "against" the placement area, when the drawings show the annular shoulders located in/on the face of the placement area. It is also unclear how this face is disposed "opposite" the wheel bowl unit, when the drawings show the face of the placement area being in contact with, or lying adjacent to, the wheel bowl unit.

7. Claim 11 recites the limitation "annular shoulders" in line 13. There is insufficient antecedent basis for this limitation in the claim. This limitation has not been previously set forth in the claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-2, and 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over English in view of Hummel et al and in further view of Maiworm et al.

English shows a magnesium alloy wheel 10 for a motor vehicle (see column 2, lines 54-57). The wheel 10 has a bowl unit 21 with a central area in which attachment

borings (or holes) 23 for bolts 16 and a hub bore. The wheel bowl unit 21 further includes a rear, ring-shaped placement area 34 for mounting to a brake element.

While English does not show the wheel being mounted to a disc brake element, however English does show the wheel being mounted to a brake drum 14. Brake drums and brake discs are considered equivalent braking elements that serve the same function.

A spacing disk 28 is provided at the placement area 34 and hub bore. A spacing tube 29 at least partially penetrates the hub bore in the axial direction. The spacing tube 29 and the spacing disk 28 are monolithically formed together. The spacing disk 28 is provided on the placement area 34 of the wheel bowl unit 21.

English does not disclose that the spacing disk is formed from an aluminum alloy, nor does English show the attachment bores having spacing liners provided therein. Hummel et al teaches the use of a spacer unit 21a formed from an aluminum alloy. Hummel et al also teaches the use of spacing liners 7 that penetrate the boltholes of the wheel in the axial direction. These spacing liners 7 are press fit into the bores (see column 2, lines 55-56), and are therefore attached in an unlosable manner to the wheel.

Hummel et al does not specify the type of material that the attachment bore spacer unit 7 is formed from. However, it would have been obvious in the art at the time of the invention to provide the bolt and hub bore spacer units from the same aluminum alloy material as that of the ring-shaped placement area spacer unit 21a for the purpose of reducing the cost of purchasing and machining multiple types of materials, creating a

more uniform aesthetic appearance to the wheel, and preventing corrosion between an magnesium alloy wheel and hub of the brake.

Therefore from these teachings, it would have been obvious to one of ordinary skill at the time of the invention to provide the wheel of English with spacer units of an aluminum alloy and spacing liners press fit into the boltholes of the wheel for the purpose of preventing corrosion between the magnesium wheel and brake unit, and to assist in the centering of the wheel on the brake unit during installation. The spacing liners acting to prevent corrosion between the wheel and the steel lug bolts of the hub/brake unit, while the spacer unit would act to prevent corrosion between the wheel and the hub/brake unit itself.

10. English as modified by Hummel et al does not show the spacing tube and spacing disk connected together through a conical transition section. English as modified by Hummel et al also does not show the spacing disk having penetrating bores through which the spacing liners are guided and connected, nor does English as modified by Hummel et al show the spacing liners having flange edges to form an interlocking connection with the spacing disk.

Maiworm et al teaches the use of a spacing tube 11 and a spacing liner 10 that are connected together at a conical transition section. This conical transition section is designed to assist in centering the wheel on the hub and/or brake member during mounting of the wheel. Therefore from this teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the monolithically formed

spacing tube 29 and spacing disk 28 of English as modified by Hummel et al with a conical transition section, for the purpose of providing a means of centering the wheel on the hub and/or brake member during installation of the wheel; thus reducing the amount of effort required to mount the wheel and reducing the probability of damage to the wheel and/or hub and brake components during installation.

Maiworm et al further teaches the use of a spacing liner 13 having a flange edge 14, wherein the spacing liner 13 is guided into and connected with a spacing disk 10 through penetrating bores 12. As best understood, the radially extending flanges 14 of the spacing liners 13 are received against an annular shoulder 18 that surrounds the penetrating bores 12 of the spacing disk 10. The annular shoulders 18 are disposed in the placement area face (namely the side of the spacing disk 10 that engages the wheel), which is adjacent the wheel bowl unit. Therefore from this teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the spacing disk and spacing liners of English as modified by Hummel et al with penetrating bores and flanged edges, respectively for the purpose of protecting the magnesium wheel from contact with the typically steel or iron axle or hub portion of a brake; thereby preventing corrosion between the wheel and the brake and/or axle, and to provide a more secure interlock between the spacing units.

Response to Arguments

11. Applicant's arguments filed 8 November 2004 have been fully reconsidered, due to reapplication of references English, Hummel et al, and Maiworm et al against the claims, but they are not persuasive.

The Applicant argues that the English reference teaches away from use as a corrosion-preventing spacer, due to the fact that English is drawn to an adaptor plate. The Applicant further argues that English teaches against the use of a spacer disk and tube unit with spacing liners, due to the fact that English is "an alternative to prior art constructions which involved 'use of a plurality of inserts respectively associated with large lug bolts openings in the center webs of the wheel to closely fit such openings to the shanks of the lug nuts passed therethrough'".

First, given the fact that English shows a plate having a monolithically formed disk 28 and tube 29 that is inserted between a magnesium wheel and a steel brake unit; one of ordinary skill in the art would find that the plate of English would act as a spacing unit between the wheel and brake unit.

Second, the section of English cited by the Application deals with the use of an adaptor plate for mounting a wheel on a plurality of differently sized wheel hubs without the use of additional hardware. However, this does not preclude the teachings of Hummel et al, which is drawn to using a spacer unit (including a spacing disk and spacing liners) for preventing corrosion between a magnesium wheel and a steel hub/brake unit. Given the fact that the plate of English acts as a spacing unit, and the teachings of Hummel et al of using spacing liners in the wheel bores, one of ordinary

skill in the art would have found it obvious to use the plate of English with spacing liners taught by Hummel et al for the purposes discussed in paragraph 8 above.

Therefore in this instance, one of ordinary skill in the art would be using the plate of English would not as an adaptor plate for mounting on various sized hubs, but as a spacer unit for preventing corrosion between a wheel and hub. Given the teaching of Hummel et al that spacing liners placed in wheel bores also prevent corrosion between the wheel and elements of the hub/brake unit, one of ordinary skill in the art would use spacing liners in addition to the spacing unit of English to provide additional corrosion preventing means.

12. The Applicant further argues that Maiworm et al teaches away from a monolithically formed spacing tube, conical transition section, and spacing disk, since the spacing unit of Maiworm et al is formed of an aluminum disk 10 and a plastic tube 11. However, the Maiworm et al reference is used to teach the use of a spacing unit having sections (collectively 10 & 11) that are connected through a conical transition section. This conical transition section is known to reduce the amount of force required to mount a wheel on a hub/brake, due to the centering action of the conical transition section. The spacing plate of English is already monolithically formed together, and thus the Maiworm et al reference is simply used to teach the addition of a conical transition section for increasing the centering capabilities of the spacing plate of English.

13. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R. Bellinger whose telephone number is 703-308-6298. The examiner can normally be reached on Mon - Thurs (9:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on 703-308-0230. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason R Bellinger
Examiner
Art Unit 3617

jrb

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